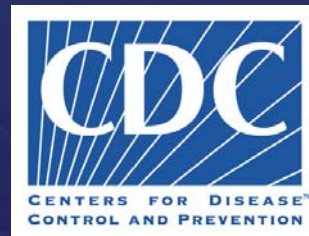




HHS Pandemic Influenza Preparedness Planning

Julie Louise Gerberding, MD, MPH





The Burden of Influenza

- 250,000 to 500,000 deaths globally/yr
- 36,000 deaths and >200,000 hospitalizations/yr in U.S.
- \$37.5 billion in economic costs/yr in U.S. related to influenza and pneumonia
- Ever-present threat of pandemic influenza

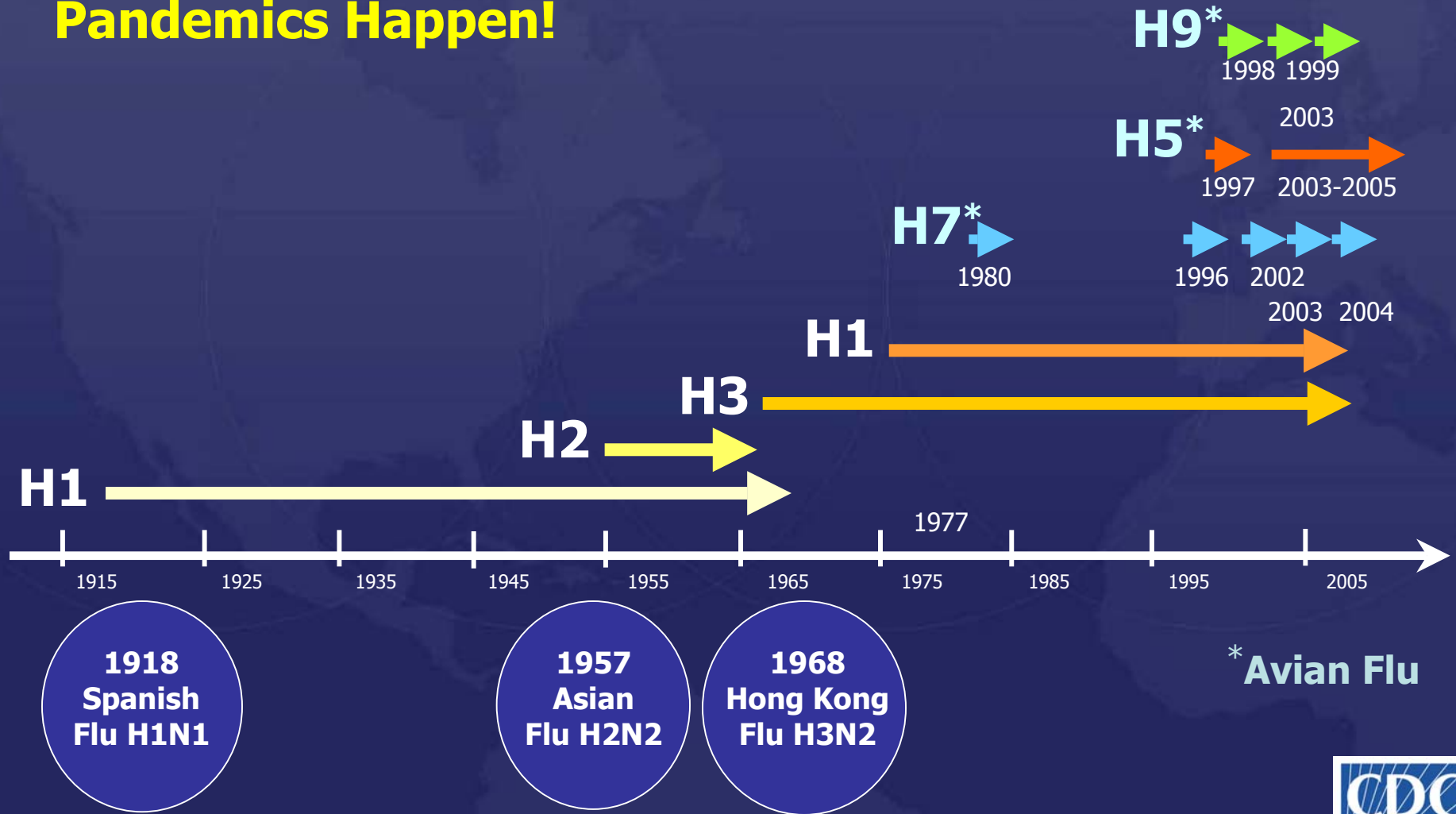
Seasonal Influenza Preparedness



Pandemic Influenza Preparedness



Pandemics Happen!



* Avian Flu

H5N1 Influenza Severe Pneumonia - Vietnam 2004

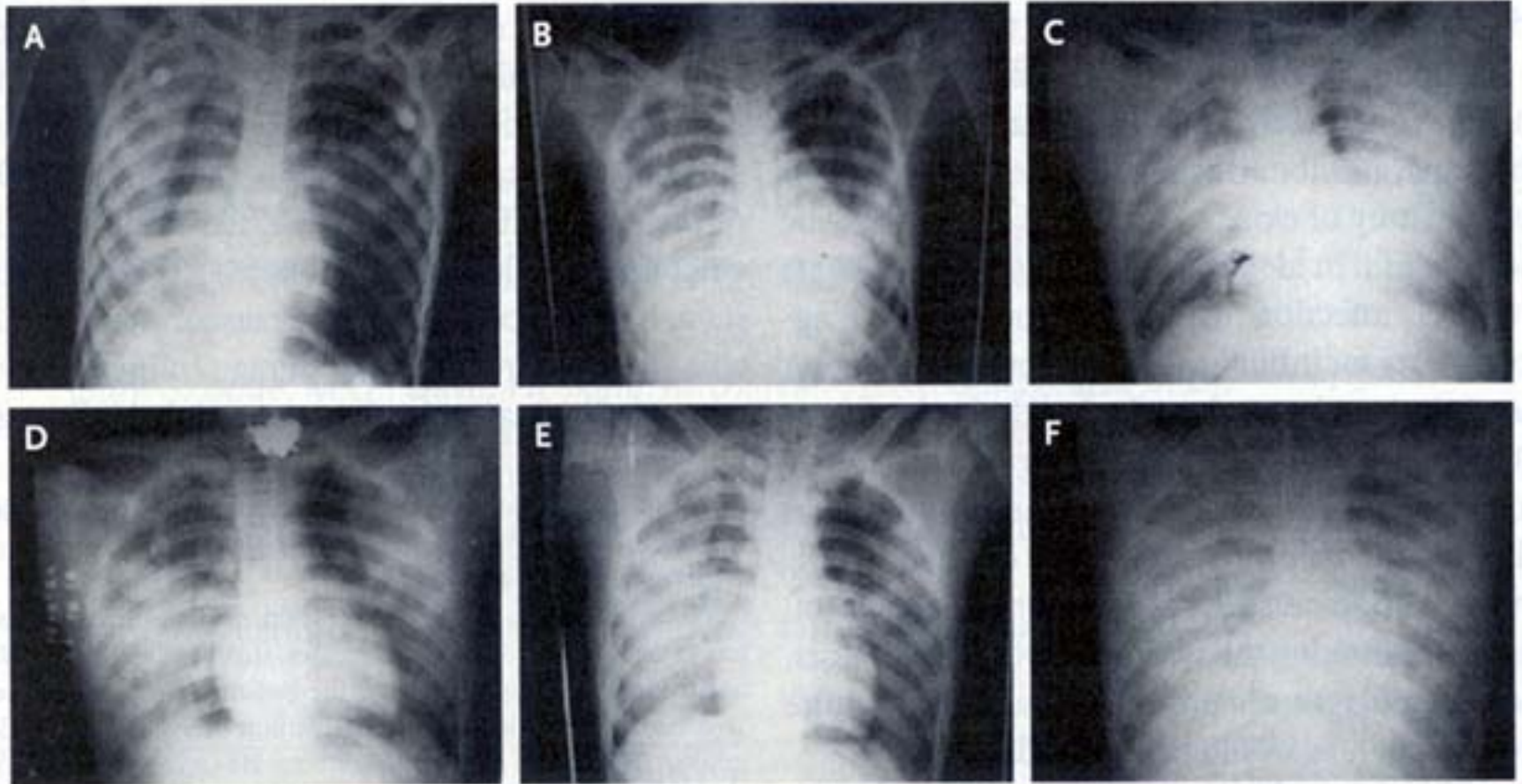
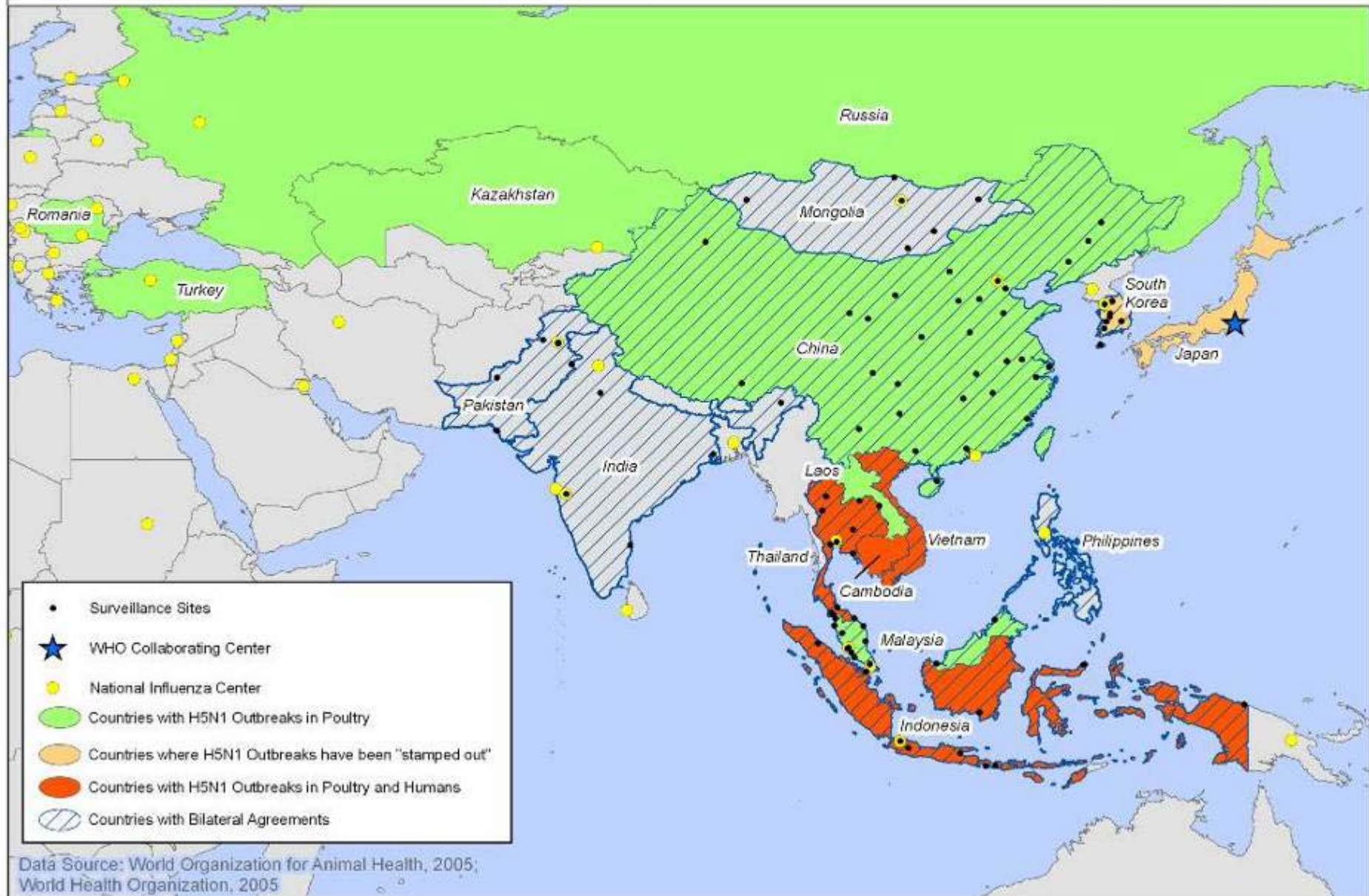


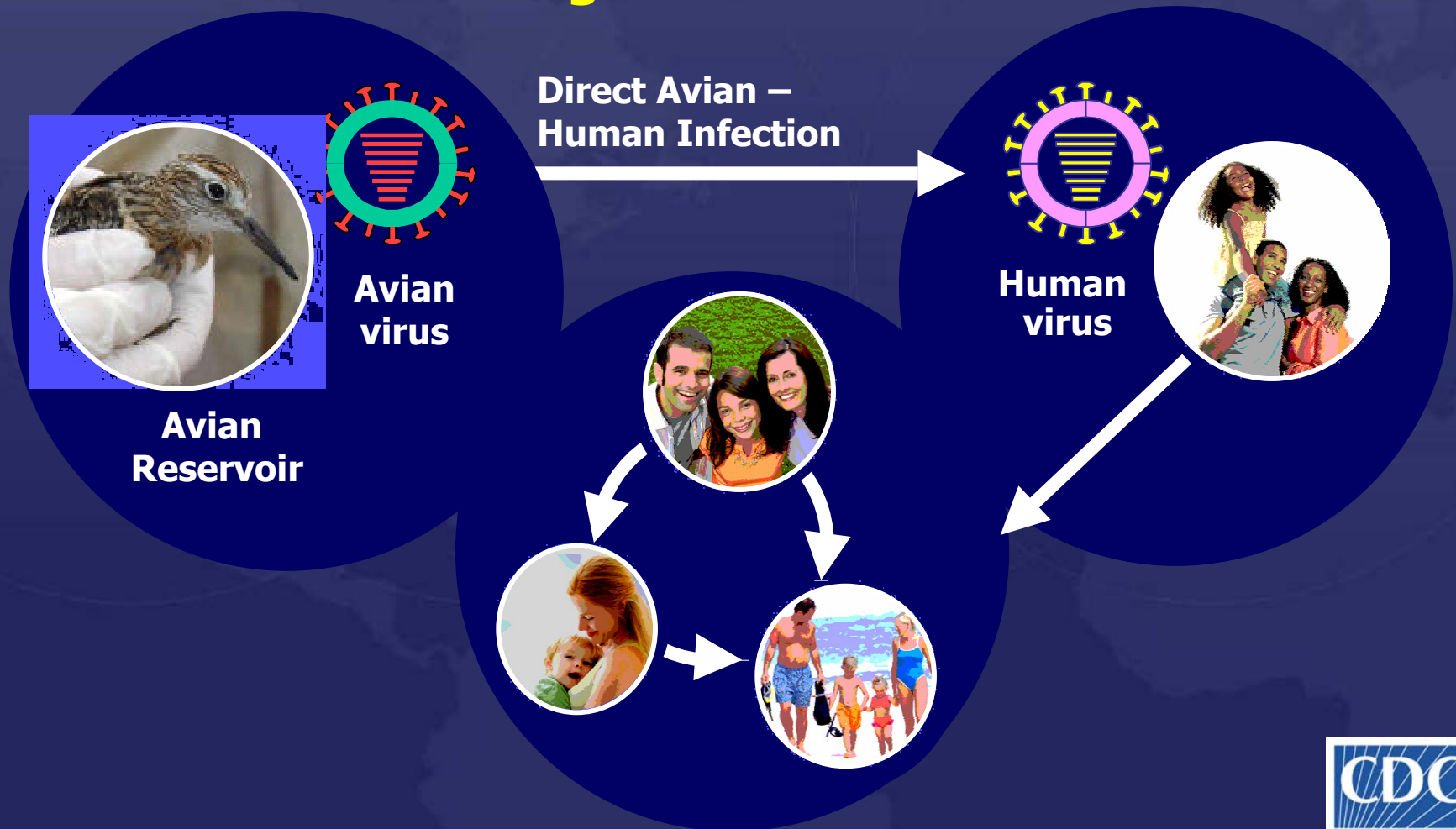
Figure 3. Chest Radiographs.

Radiographs from Patient 5 (Panel A), Patient 7 (Panel B), and Patient 9 (Panel C) show widespread consolidation, collapse, and interstitial shadowing. In Panels D, E, and F, three chest radiographs show the progression in Patient 8 on days 5, 7, and 10 of illness, respectively.

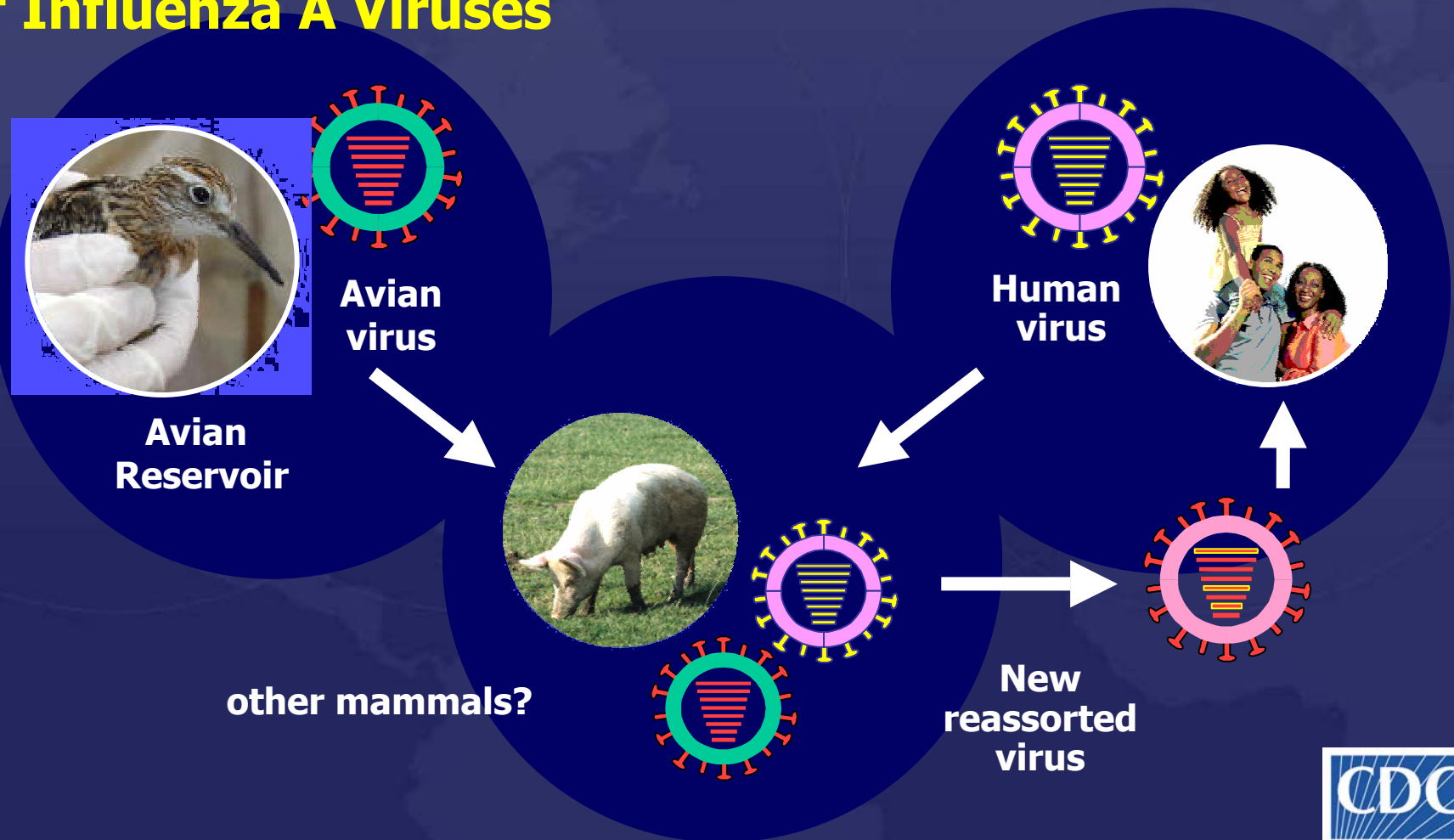
National Influenza Centers, WHO Collaborating Centers, Surveillance Sites, Nations with Bilateral Agreements, Avian Outbreaks, and Human Cases



Pandemic Strain Emergence: Direct Infection



Pandemic Strain Emergence: Reassortment of Influenza A Viruses



PANDEMIC PLANNING

GET INFORMED BE PREPARED



Addressing Local Practices





Situation Report: Avian Influenza

- ☒ Widespread and spreading prevalence in migratory birds; broad host range
- ☒ Continued outbreaks among domestic poultry
- ☒ Mammalian infection (cats, pigs, etc.) lethal
- ☒ Virus is evolving
- ☒ Sporadic human cases (>140 reports to date)
 - Most in young and healthy
 - Case-fatality 50%
 - Rare person-to-person

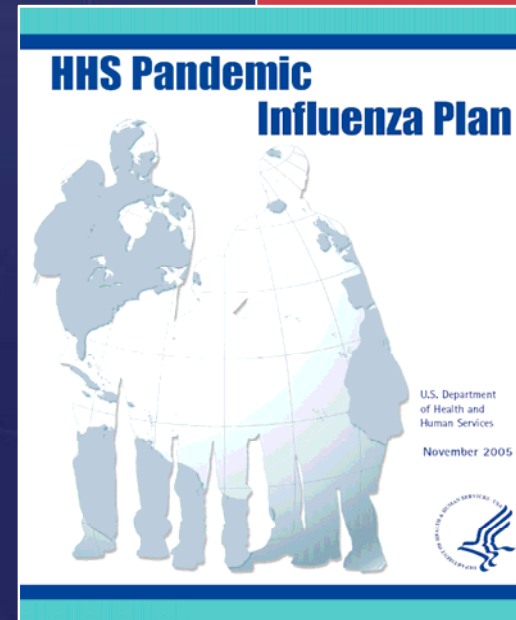
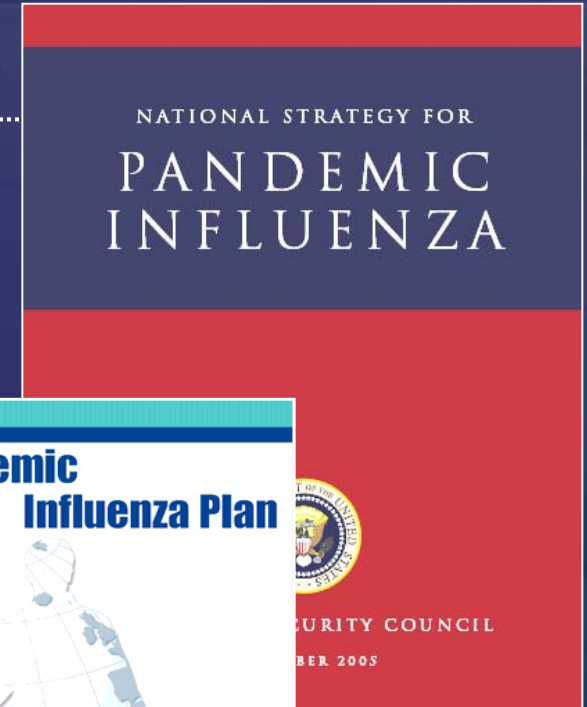


Sustained and rapid person-to-person transmission



HHS Pandemic Influenza Plan

- Support the National Strategy for Pandemic Influenza
- Outlines planning assumptions and doctrine for health sector pandemic preparedness and response
- Public Health Guidance for State and Local Partners
- 11 Supplements provide detailed guidance



HHS Pandemic Influenza Doctrine: Saving Lives

- A threat anywhere is a threat everywhere!
- Quench first outbreaks: detect and contain where it emerges, if feasible
 - International collaborations
 - Frontline detection and response; rapid laboratory diagnosis
 - Isolation / quarantine / antiviral prophylaxis / social distancing / animal culling



HHS Pandemic Influenza Doctrine: Saving Lives

- Prevent/slow introduction into the United States
 - May involve travel advisories, exit or entry screening
 - For first cases, may involve isolation / short-term quarantine of arriving passengers

HHS Pandemic Influenza Doctrine: Saving Lives

- Slow spread, decrease illness and death, buy time
 - Antiviral treatment for people with illness
 - Isolation / social distancing / voluntary quarantine
 - Vaccine when available
 - Local decisions

HHS Pandemic Influenza Doctrine: Saving Lives

- Clearly communicate pandemic risk to the public
 - Prepare the U.S. public and communities
 - Provide accurate, timely, comprehensive information
 - Facilitate public perception while minimizing fear
 - Ensure consistent messages across levels and sectors
 - Address rumors, inaccuracies, and misperceptions



Pandemic Planning is a Shared Responsibility

- Federal, State, and Local Governments have roles
- State and Local Responsibilities:
 - Community Preparedness Leadership and Networking
 - Surveillance and Laboratories
 - Healthcare Delivery and Infection Control
 - Vaccine and Antiviral drugs
 - Community Disease Control and Prevention
 - Public Health Communications
- Public and Private Sectors Organizations also have roles

PANDEMIC PLANNING

GET INFORMED BE PREPARED



Countermeasures: Vaccines, Antivirals, and Medical Supplies



Strategic National Stockpile





Vaccine Production and Use: U.S Seasonal Influenza

	Doses Produced (millions)	Doses Distributed (millions)
1980	15.7	12.4
1985	23.1	20.1
1990	32.3	28.3
1995	71.5	54.9
1999	77.2	76.8
2000	77.9	70.4
2001	87.7	77.7
2002	95.0	83.0
2003	86.9	83.1
2004	61.0	56.5



Antivirals and Medical Supplies: Influenza Treatments

- Stockpile
 - Tamiflu: 4.3 million courses in Strategic National Stockpile with an additional 1 million courses by end of January 2006
- Strategy
 - Procure 81 million courses of antivirals
 - 6 million courses to be used to contain an initial U.S. outbreak
 - 75 million courses to treat 25 percent of U.S. population
- Accelerate development of promising new antiviral candidates



Major Challenges to Pandemic Vaccine Development and Availability are Production and Surge Capacity

- Accelerate development of cell culture based vaccine technology
- Develop novel vaccine approaches
- Evaluate dose-sparing technology (adjuvants, intramuscular vs. intradermal)

PANDEMIC PLANNING

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State and Local Pandemic Influenza Planning Checklist

- ✓ Community Leadership and Networking
- ✓ Surveillance
- ✓ Health System Partnerships
- ✓ Infection Control and Clinical Care
- ✓ Vaccine Distribution and Use
- ✓ Antiviral Drug Distribution and Use
- ✓ Community Disease Control and Prevention
- ✓ Communications
- ✓ Workforce Support

STATE AND LOCAL PANDEMIC INFLUENZA PLANNING CHECKLIST			
<p>Planning for pandemic influenza is critical. To assist you in your efforts, the Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed the following checklist. It identifies important, specific activities you can do now to prepare. Many are specific to pandemic influenza, but a number also pertain to any public health emergency.</p> <p>This checklist is based on the HHS Pandemic Influenza Plan, Public Health Guidance for State and Local Partners, but is not intended to set forth mandatory requirements. Each state and local jurisdiction should determine for itself whether it is adequately prepared for disease outbreaks in accordance with its own laws and procedures.</p> <p>Community Preparedness Leadership and Networking. [Preparedness Goal 1—Increase the use and development of interventions known to prevent human illness from chemical, biological, radiological agents, and naturally occurring health threats.]</p>			
Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish a Pandemic Preparedness Coordinating Committee that represents all relevant stakeholders in the jurisdiction (including government, public health, healthcare, emergency response, agriculture, education, business, communication, community-based, and faith-based sectors, as well as private citizens) and that is accountable for articulating strategic priorities and overseeing the development and execution of the jurisdiction's operational pandemic plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Delineate accountability and responsibility, capabilities, and resources for key stakeholders engaged in planning and executing specific components of the operational plan. Assume that the plan includes timelines, deliverables, and performance measures.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Within every state, clarify which activities will be performed at a state, local, or coordinated level, and indicate what role the state will have in providing guidance and assistance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Assure that the operational plan for pandemic influenza response is an integral element of the overall state and local emergency response plan established under Federal Emergency Support Function 8 (ESF-8): Health and medical service and compliant with National Incident Management System.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Address integration of state, local, tribal, territorial, and regional plans across jurisdictional boundaries in the plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Formalize agreements with neighboring jurisdictions and address communication, mutual aid, and other cross-jurisdictional needs.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure existence of a demographic profile of the community (including special needs populations and language minorities) and ensure that the needs of these populations are addressed in the operational plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Address provision of psychosocial support services for the community, including patients and their families, and those affected by community containment procedures in the plan (see Supplement 11).

December 3, 2015
Version 4.4

CDC
CENTERS FOR DISEASE
CONTROL AND PREVENTION





Pandemic Influenza Checklists

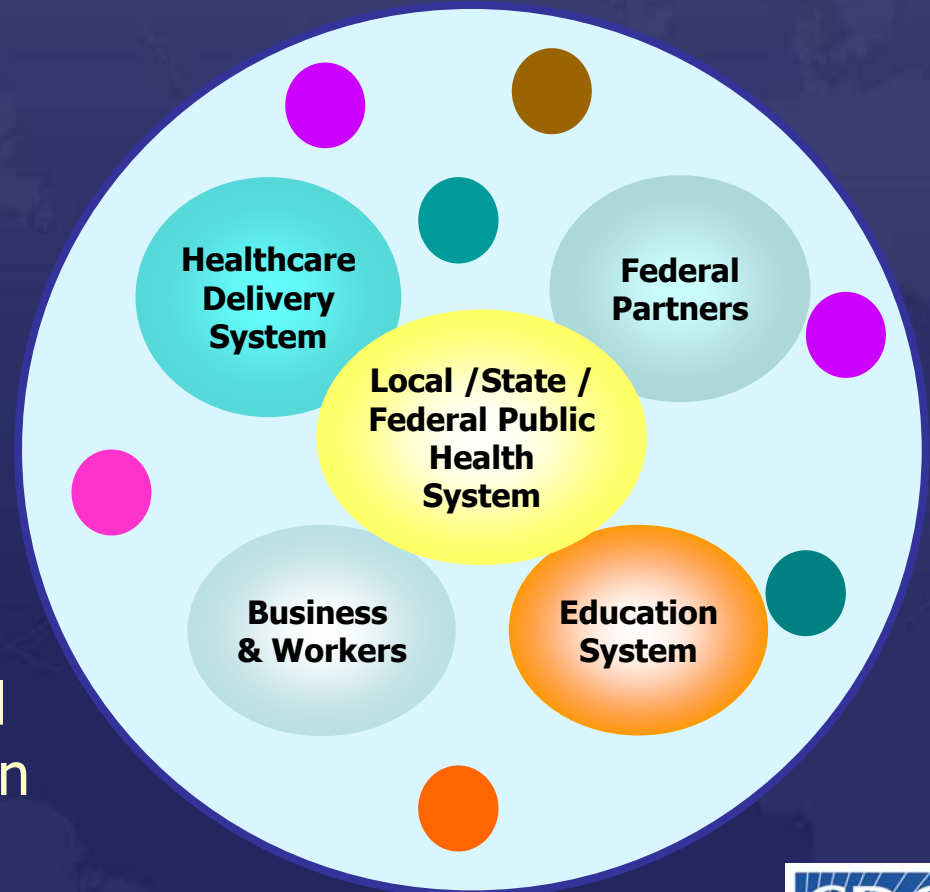
- State and Local
- Business
- Education (K-12)
- Colleges & Universities
- Preschool
- Faith-based & Community Organizations
- Physician Offices and Ambulatory Care
- Home Health
- Emergency Medical Services
- Travel Industry

Further information can be found at
www.pandemicflu.gov

Health Protection Preparedness System

It takes a **NETWORK!**

- **Local - state - federal**
- Domestic – international
- Multisector integration
- Public – private
- Non-partisan
- Animal – human
- Health protection – homeland security – economic protection



PANDEMIC PLANNING

GET INFORMED BE PREPARED



Preparedness is Local

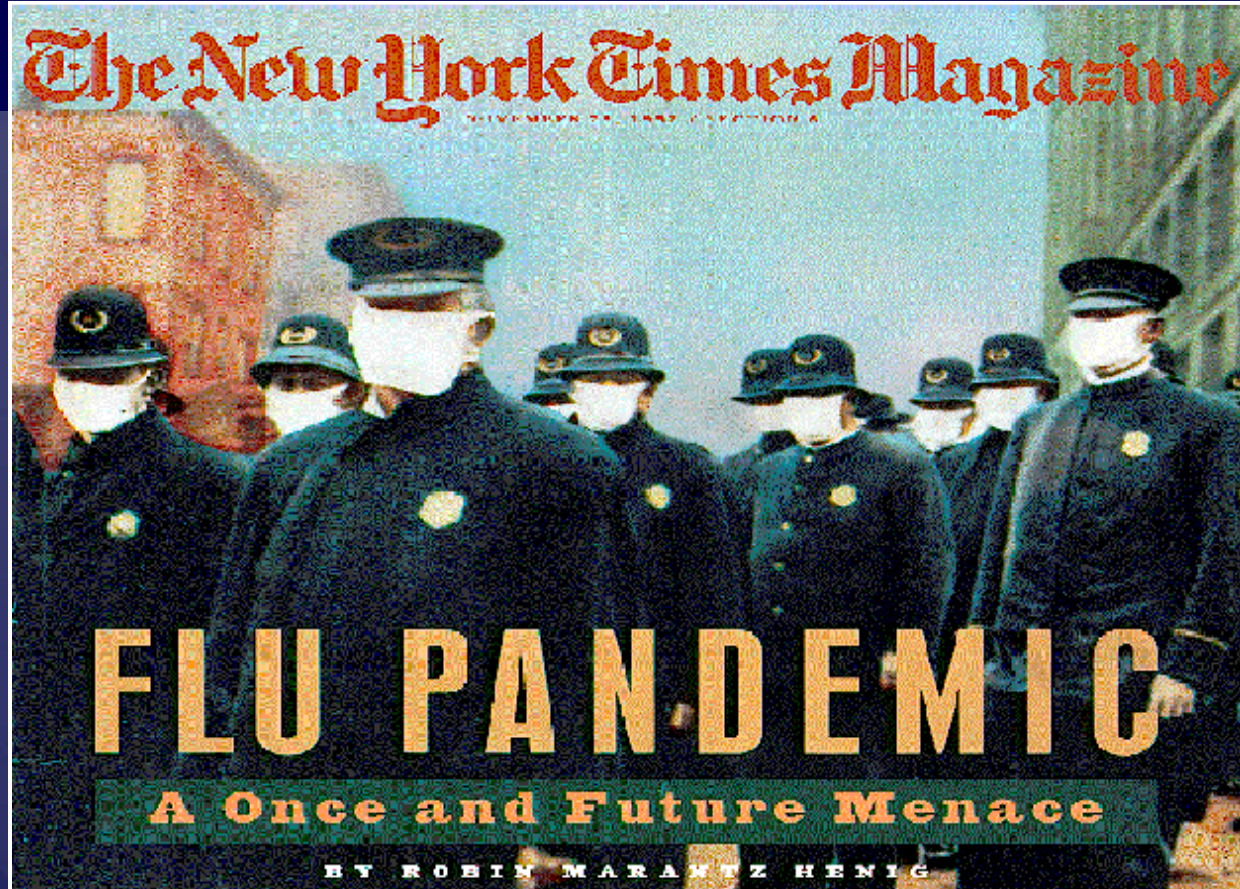


Seasonal Influenza Preparedness



Pandemic Influenza Preparedness

Complacency is the enemy of health protection!



www.cdc.gov

www.pandemicflu.gov

